



Secretary of the Air Force
Office of Legislative Liaison

CONGRESSIONAL HEARING RESUME

106th Congress

Date: 8 March 2000

SUBJECT: Hearing on National Security Space Programs, Policies, and Operations

COMMITTEE: Senate Armed Services Committee
Subcommittee on Strategic

CHAIRMAN: The Honorable Wayne Allard (R-CO)

OTHER COMMITTEE MEMBERS PRESENT: Mary Landrieu (D-LA), Bob Smith, (R-NH),
James Inhofe, (R-OK)

WITNESSES: General Ralph E. Eberhart, USAF, Commander-in-Chief, US Space Command
Honorable Keith R. Hall, ASAF (Space), Director, National Reconnaissance Office

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EXECUTIVE SUMMARY

The Subcommittee convened this hearing to examine, within the limits of an open hearing, how well Space Command and the NRO are doing in providing space support to the warfighter, and how the two organizations complement each other in this effort. The Subcommittee also reviewed DoD's major space development and acquisition programs, and current efforts regarding space management and organization.

The Subcommittee was called to order at 1400.

OPENING REMARKS

Sen Allard

- Noted space technology, doctrine, organization, and operation are critical to National Defense
- Looked forward to an assessment of how well Space Command and the NRO are doing in providing space support to the warfighter, and how the two organizations complement each other
- Interested to hear which space requirements were unfunded or underfunded, and views on major space development and acquisition programs
- Welcomed comments on the two commissions investigating space management and organization

Sen Landrieu

- Noted the importance of space and the need to ensure proper budgetary support, and the importance of proper requirements review and validation
- Looked forward to a discussion regarding the DSP to SBIRS transition, how the AF/BMDO relationship was working within the SBIRS Low program, and an update on the status of the two EELV rocket engine programs

Sen Smith

- Stated his belief that whomever controls space will win the next war, and therefore control of space is absolutely critical to saving the lives of our men and women all over the world

WITNESS STATEMENTS

Gen Eberhart

- Commented on the strong partnership between USSPACECOM and the NRO
- Stated his #1 priority was people, and the need to recruit, retain, train, and equip them
- Noted the importance of fair pay, retirement, health care, and housing, together with proper training, modern equipment, and adequate spare parts
- Recognized USSPACECOM's total force team -- a bi-national team of active duty, guard, reserve, contractors, civilians, retirees, and family members. A joint team of soldiers, sailors, airmen, and marines
- Discussed SBIRS (his #1 platform priority), GPS modernization, MILSATCOM (need to mitigate the loss of Milstar Flight 3), EELV (importance of both contractor efforts), Space Lift Range upgrades, and SBR, SBL, and the overall science & technology effort

Mr. Hall

- Noted his unique position (as DNRO and ASAF(Space)) to look across the so-called "black" and "white" space arenas, and to identify potential synergies, partnerships, and greater efficiencies
- Stated the future lies in much stronger partnerships between the two space areas
- Discussed the formal working agreements between the NRO and the AF & Navy, and the close working relationship with the Army
- Believes we are starting to see the Services organize, train, and equip to use "black" space systems
- Believes the effectiveness of space support to the warfighter can be seen daily over the skies of Iraq, and was prominent in Kosovo
 - Saw the advent of new aerospace integration capabilities (e.g., imagery from UAVs, registered to national satellite imagery for accuracy, and uplinked rapidly to strike aircraft)
- In addition to the Services, noted the NRO is working with DARPA, NASA, and private industry to provide space capabilities
- Flagship for collaborative programs is the Discoverer II program, a space-based radar demonstration effort across DARPA, the Air Force, and the NRO
- Commented on 1998/1999 launch problems, noting the current implementation of recommendations from the various launch reviews
 - Highlighted the 12 successful launches since April 1999
- Remarkd the acquisition of the Future Imagery Architecture is well underway

KEY COMMENTS, QUESTIONS, AND ANSWERS

- **Sen Allard**
 - **Asked how well Space Command and the NRO were coordinating, and was there any duplication?** **Mr. Hall** stated while there certainly was duplication several years ago, he believed it has since been "rung out." He noted the joint support teams supporting other CINCs, and that he meets with CINCSpace (and with the Director, NASA) at least twice a year to reduce duplication. **Gen Eberhart** noted their efforts to provide one face to the warfighter -- one stop shopping. He believes the NRO and Space Command are becoming a seamless team, which he noted was clearly the right thing to do.
 - **The Sen asked if Space Command should control all national security space assets?** **Gen Eberhart** said that was not necessary today. What is important is that the two organizations work seamlessly. **Mr. Hall** responded that if you look at the type of systems the Nation needs 10 to 15 years from now, those that will enable near continuous surveillance vs. reconnaissance, the organization supporting those systems would be different. He also stated there is time to figure out the correct organization for that environment, and change now may actually set the space community back.
 - **The Chairman then asked how well we did in providing space support in Kosovo?** **Gen Eberhart** replied the lessons learned were mostly positive. He highlighted GPS-aided munitions, and lessons learned in terms of bandwidth needed in a major theater war (the Gen noted Kosovo was a major theater war for the Air Force). The Gen summarized we are headed in the right direction -- the question is pace, which is a question of resources. **Mr. Hall** added we learned we need to improve what he termed our "turning radius" -- the time from when a requirement is identified to when the requirement is satisfied. Ways to collapse the Tasking, Processing, Exploitation, and Dissemination (TPED) timeline to minutes vs. hours are required.
 - **Sen Allard noted the FY01 Air Force budget request for space control technology (\$9.7M including \$7.3 for negation technology) is modest, and asked Mr. Hall if the Air Force**

should seek additional funds. Mr. Hall stated there is no question in the future this funding line will increase, and noted ASD(C3I) is currently conducting a broad area review of space control capabilities.

- **The Sen asked Gen Eberhart if he believed space was more than a subset of information superiority (as characterized by DoD), and if so, should any changes be made organizationally?** Gen Eberhart stated his bias is that information superiority is a subset of space, and offered that in the not too distant future, USSPACECOM will be not just a supporting CINC, but also a supported CINC in some cases.
- **Sen Allard asked several questions concerning major space development and acquisition programs.** To Gen Eberhart, does he support the acquisition of the **space-maneuver vehicle**, second tail number? Gen Eberhart stated yes, but it is a question of resources. The \$15M provided by Congress for FY00 is a start, but not nearly enough. It is an issue to be dealt with in the FY02 budget, but he certainly supports it. The Sen asked if **SBIRs** is still the number one acquisition priority, and the Gen replied yes. Sen Allard followed-up by asking if any additional slips to SBIRs would be acceptable, for which the Gen replied, from his perspective, no. The Sen inquired about the importance of the **Discoverer II space-based radar program**. Gen Eberhart stated as a technology demonstration it offers some real payback and some large dividends. Mr. Hall added that while not initially supportive of Discoverer II's predecessor (Star Light) because it focussed solely on tactical military needs, when the program became synergistically supportive of intelligence activities, he strongly supported it, and has been a supporter ever since. Finally, Sen Allard asked about the importance of the **space-based laser program**. Gen Eberhart replied it is very important, and he could not envision a foolproof national missile defense capability without it. Mr. Hall agreed, and noted the technologies important to a space-based laser can have dividends in other areas, such as space-based optics. The Sen asked Gen Eberhart if 2012 for launch of an integrated flight experiment is acceptable (as supported by the DoD budget)? The Gen replied 2012 seemed to make sense, based on an independent review by Gen Larry Welch retired. The Gen continued by stating that if more money became available, and technology was not limiting, he would like to move that up.

- **Sen Landrieu**

- Asked the witnesses to comment on the government's **subsidizing of commercial space launches today and protection of commercial space assets in the future -- an increasing burden on DoD and military services.** Mr. Hall stated the role commercial vendors will play in space depends on two things. First, where there is a commercial predicate, a direct desire to satisfy a private market (e.g., launch), there is a tremendous opportunity for the government to reduce its investment and R&D and rely on the commercial services to cover all or part of those costs. Secondly, there are also some services, such as communications, that we can clearly buy when we need them. Mr. Hall also emphasized, however, that while we talk about the burgeoning commercial space world, the government still is, across NASA, NRO, and the military space communities, the main developer and investor in new technology.
- The Sen also asked the witnesses to comment on **cyber security**, or more specifically, **computer network defense (CND) and computer network attack (CNA).** Mr. Hall noted a natural need for a partnership with the intelligence community and CINCSPACE in these areas. Gen Eberhart stated the Unified Command Plan assignment of the CND/CNA missions to USSPACECOM essentially brings efforts together for the DoD at one place. The Gen also noted USSPACECOM's implementation of Info Cons, and execution of the CND mission through a joint task force. **The Sen asked if additional people are required, and is the budget adequate?** Gen Eberhart stated they have identified the manpower, and about 50%

have reported or will soon report. They are in the process of validating the remaining manpower slots, and they will know more in about six months.

- **Sen Smith**

- The Sen asked **Gen Eberhart** if **funding on space programs** is an issue that ought to be addressed as a deficiency? The Gen replied yes.
- Sen Smith asked several questions concerning **National Missile Defense (NMD)** including whether **Gen Eberhart** felt a system that depends on a **single radar site in Shemya was too vulnerable?** The Gen noted that while the X-band radar they are considering on Shemya is obviously key, there are five other radars in the architecture. Additionally, during the height of the Cold War we were able to adequately protect high value assets on Shemya. The Sen also asked the Gen how he felt about an **integrated air, land, and sea system?** Gen Eberhart stated he personally believed there will be a day where we will need that, and a concept of operations and an architecture that could accommodate that is required.
- The Sen noted the **Kinetic Energy ASAT** program is the nearest-term space control answer with the least risk, and asked if **Gen Eberhart** had forcefully supported the program? The Gen replied no, not of yet, and noted destruction of satellites is the “last-ditch maneuver” when considering space negation. Other, reversible, options are preferable, but we ought to have the Kinetic Energy ASAT capability “on the shelf” if at some time we decide we have to complete the flight demonstrations and have it in our arsenal. Sen Smith stated he believes there are about 18 to 24 months left of activity to put it on the shelf, yet funding has been denied, and he believes this is an issue that needs to be resolved before we get through the budget process.
- Sen Smith asked **Mr. Hall** about efforts to ensure our **allies are equitably investing in space systems**. Mr. Hall responded our efforts have been mixed in terms of effectiveness, but noted the merged National Polar-Orbiting Operational Environmental Satellite System as an example of cooperation with the Europeans.
- Commenting on combined commercial and DoD systems, the Sen asked about **lessons learned from Iridium**. **Mr. Hall** stated it would be better to wait until there is a service to buy before investing a significant amount of money.
- The Sen concluded by noting the fact we used every bit of bandwidth allocation available in Kosovo, that ought to be a red flag, and interoperable systems are the key in his opinion.

- **Sen Inhofe**

- The Sen commented that in regards to **NMD**, intelligence has been wrong in the past, and we are in a totally different environment today then when the ABM Treaty was first established. The Sen believes there is an imminent, immediate threat, and the treaty should be ignored and a NMD system deployed as soon as possible, provided it has the flexibility for a limited attack. He asked the witnesses to comment on his statements. **Gen Eberhart** responded he believes, given the threat, the course that has been set will meet our needs and is reasonable.
- The Sen asked if the workload of USSPACECOM, NORAD, and AF Space Command warrants splitting the responsibilities out? **Gen Eberhart** stated it was too early for him to make a decision on that, but he believed sometime in the future there will be a Marine, sailor, or soldier as commander of USSPACECOM and possibly NORAD, with a separate commander for Air Force Space Command.
- The Sen expressed concern over preserving **Global Positioning System (GPS)** service for general aviation and civil use, while denying “the wrong people” use of our system. **Gen Eberhart** stated the GPS modernization path, and new acquisition strategy currently in development, will answer that need. He stated the path will ensure our forces on the battle

field will have the timing and navigation they need, deny other forces access, and continue to provide service to commercial and civil users outside the area of operations. The Gen stated he felt confident that we would get there.

The Subcommittee adjourned at 1530.